

Amendments to the Specification

Please replace the paragraph beginning at Page 5, line 7, with the following rewritten paragraph:

A1 -- Referring to the drawings in Figs. 1-7, Fig. 1 depicts a deposition target source 20 of the present invention having an oval shape made in two sections comprising a centrally located inner insert 22, an interlocking interface 24, and an outer region 26 completely surrounding and receiving the inner insert 22 within a central opening of outer region 26. Both the insert 22 and the outer region 26 are made of the same material composition being used as the ion beam deposition material. The interlocking interface 24 joins the inner insert 22 and the outer region 26 by a mechanical interlocking lip or groove structure located on opposing mating surfaces of the inner insert 22 and the outer region 26. The mechanical interlocking lip or groove structure of the interface 24 is depicted in Figs. 2 and 4-7.--

Please add the following new paragraph after the paragraph ending on line 18 of page 5:

A2 -- As shown in Figs. 2 and 4, the interface 24 comprises an annular lower lip formed in the outer region 26 and an annular upper lip formed in the insert 22 and mating with the lower lip to form the two-part cohesive target source 20. The interface 24 as shown in Fig. 6 further enhances the cohesiveness of the target source 20 by the formation of an annular groove in the upper lip mating with an annular ridge formed on the lower lip. Alternatively, and as shown in Fig. 7, the upper and lower lips of Fig. 6 are reversed to provide a positive mechanical lock to retain the insert 22 in position along with bonding to a backing plate 30 as will be described.--

This listing of claims will replace all prior version, and listings, of claims in the application:

Claim 1 (currently amended): A deposition target source ~~for ion~~ deposition of a material onto a substrate; and made of two parts of the same deposition material, one part comprising an inner insert having at least one mating surface; the other part comprising a separate outer region at least defining a central opening to receive the inner insert with the outer region substantially surrounding the inner insert and, the outer region having a surface detachably mating with the mating surface of the inner insert; and an interlocking interface formed by the mating surfaces of the inner insert and the outer region, both to form the a cohesive deposition target source from the inner insert and the outer region and to enable detachment of the inner insert for replacement after ion deposition.

A3
Claim 2 (original): A target source according to Claim 1, wherein the interlocking interface comprises a mechanical interlocking lip structure to prevent contaminants from passing between the mating surfaces of the inner insert and outer region.

Claim 3 (currently amended): A target source according to Claim 32, wherein the mechanical interlocking lip structure ~~is formed substantially as shown in Figs. 1-4.~~ comprises a first annular lip formed at the central opening of the outer region, and an annular mating lip formed on the inner insert. 43

Claim 4 (currently amended): A target source according to Claim 3, wherein ~~the mechanical interlocking lip structure is formed substantially as shown in Fig. 5.~~ one of the lips defines an annual groove and the other of the lips defines an annular ridge mating with the groove.

Claim 5 (withdrawn)

Claim 6 (original): A target source according to Claim 1, wherein the inner insert and the outer region each define a rear surface, and further comprising a backing plate affixed to the rear surfaces of the inner insert and outer region.

Claim 7 (currently amended): A target source according to Claim ~~1~~6, and further comprising a bonding layer of solder to affix the backing plate.

Claim 8 (currently amended): A method of reusing an eroded deposition target source used for ion deposition of a material from the target source, comprising the steps of:

(a) forming the target source in ~~at least~~ two separate parts made of the same deposition material ~~and, one part~~ comprising an insert, from which the material is to be used for deposition, and an outer part ~~at least substantially~~ surrounding the insert by an interlocking interface to prevent contaminants from passing between the parts; *Hunt et al.*

(b) affixing both parts to a backing plate to form a cohesive assembly for insertion into an ion beam deposition machine for deposition of material substantially from the insert onto a substrate, thereby eroding the insert; and

(c) removing from the ion beam deposition machine at least the insert after deposition and replacing it in the ion beam deposition machine with a new uneroded insert for further deposition using material from the new uneroded insert.

Claim 9 (currently amended): The method according to Claim 8 ~~in which both target parts are affixed to a backing plate to form an assembly~~, and comprising the step of removing the entire assembly after deposition, detaching at least the eroded insert from the backing plate, and replacing the eroded insert by affixing ~~the~~ a new uneroded insert to the backing plate ~~place~~ and reusing the outer part and the new uneroded insert for further deposition in the ion beam

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deposition machine.

Claim 10 (withdrawn)
